

Appl. No. 09/743,684  
Amdt. Dated January 30, 2006  
Reply to Office Action of July 28, 2005

Attorney Docket No. 89188.0130  
Customer No.: 26021

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1-5. (CANCELED)

6. (Previously Presented) The isolated polypeptide of claim 11, wherein said polypeptide specifically binds to an antibody raised against Saposin B.

7. (Currently Amended) An isolated polypeptide ~~comprising~~ consisting of an amino acid sequence ~~substantially identical to that shown in~~ which is a part of SEQ ID NO:1 2 beginning at position 7 wherein said polypeptide has the sequence of SEQ ID NO:28 and antiangiogenic activity, and wherein the polypeptide is between 5 and 80 amino acids in length.

8-9. (CANCELED)

10. (Previously Presented) The isolated polypeptide of claim 11, wherein said polypeptide is glycosylated.

11. (Currently Amended) An isolated polypeptide ~~comprising~~ consisting of the sequence R-XDVCQD-R' (SEQ ID NO:45), wherein the polypeptide has anti-angiogenic activity, and wherein:

R is selected from the group consisting of Aa<sub>1</sub>-Aa<sub>2</sub>-Aa<sub>3</sub>-Aa<sub>4</sub>-Aa<sub>5</sub>, Aa<sub>2</sub>-Aa<sub>3</sub>-Aa<sub>4</sub>-Aa<sub>5</sub>, Aa<sub>3</sub>-Aa<sub>4</sub>-Aa<sub>5</sub>, Aa<sub>4</sub>-Aa<sub>5</sub> and Aa<sub>5</sub>, or is absent, wherein:

Appl. No. 09/743,684  
Amdt. Dated January 30, 2006  
Reply to Office Action of July 28, 2005

Attorney Docket No. 89188.0130  
Customer No.: 26021

~~Aa<sub>1</sub> is glutamine, a conservative substitution thereof, or, if one or more of Aa<sub>2</sub>, Aa<sub>3</sub>, Aa<sub>4</sub> and Aa<sub>5</sub> is a specific amino acid indicated herein, any amino acid;~~

~~Aa<sub>2</sub> is proline, a conservative substitution thereof, or, if one or more of Aa<sub>1</sub>, Aa<sub>3</sub>, Aa<sub>4</sub> and Aa<sub>5</sub> is a specific amino acid as indicated herein, any amino acid;~~

~~Aa<sub>3</sub> is lysine, a conservative substitution thereof, or, if one or more of Aa<sub>1</sub>, Aa<sub>2</sub>, Aa<sub>4</sub> and Aa<sub>5</sub> is a specific amino acid indicated herein, any amino acid;~~

~~Aa<sub>4</sub> is aspartic acid, a conservative substitution thereof, or, if one or more of Aa<sub>1</sub>, Aa<sub>2</sub>, Aa<sub>3</sub> and Aa<sub>5</sub> is a specific amino acid as indicated herein, any amino acid; or~~

~~Aa<sub>5</sub> is asparagine, a conservative substitution thereof, or, if one or more of Aa<sub>1</sub>, Aa<sub>2</sub>, Aa<sub>3</sub> or Aa<sub>4</sub> is a specific amino acid as indicated herein, any amino acid; and,~~

~~X is selected from the group consisting of glycine, alanine, serine and threonine, or is absent when R is absent; and,~~

~~R' is from 0 to about 59 contiguous amino acids.~~

12-16. (CANCELED)

17. (Previously Presented) The isolated polypeptide of claim 11, wherein R' is selected from the group consisting of Aa<sub>12</sub>-Aa<sub>13</sub>-Aa<sub>14</sub>-Aa<sub>15</sub>-Aa<sub>16</sub>, Aa<sub>12</sub>-Aa<sub>13</sub>-Aa<sub>14</sub>-Aa<sub>15</sub>, Aa<sub>12</sub>-Aa<sub>13</sub>-Aa<sub>14</sub>, Aa<sub>12</sub>-Aa<sub>13</sub> and Aa<sub>12</sub>, wherein Aa<sub>12</sub>, Aa<sub>13</sub>, Aa<sub>14</sub>, Aa<sub>15</sub> and Aa<sub>16</sub> are selected from the group consisting of amino acids.

18. (Currently Amended) The isolated polypeptide of claim 17, wherein Aa<sub>12</sub> is a cysteine ~~or a conservative substitution thereof.~~

Appl. No. 09/743,684  
Amdt. Dated January 30, 2006  
Reply to Office Action of July 28, 2005

Attorney Docket No. 89188.0130  
Customer No.: 26021

19. (Currently Amended) The isolated polypeptide of claim 17, wherein Aa<sub>13</sub> is an isoleucine or a conservative substitution thereof.

20. (Currently Amended) The isolated polypeptide of claim 17, wherein Aa<sub>14</sub> is an a glutamine or a conservative substitution thereof.

21. (Currently Amended) The isolated polypeptide of claim 17, wherein Aa<sub>15</sub> is an a methionine or a conservative substitution thereof.

22. (Currently Amended) The isolated polypeptide of claim 17, wherein Aa<sub>16</sub> is a valine or a conservative substitution thereof.

23. (Currently Amended) The isolated polypeptide of claim 11, which has the amino acid sequence GDVCQDCIQMV (SEQ ID NO:19) of SEQ ID NO:13, 19, 21, 24, 25, 26, or 27.

24. (WITHDRAWN) An isolated protein, wherein said protein specifically binds to Saposin B and is found on the surface of cells selected from the group consisting of KS Y-1, SLK and HUVEC.

25. (WITHDRAWN) The isolated protein of claim 24, wherein said protein is recombinantly expressed.

26. (WITHDRAWN) An antibody that is specifically reactive with the isolated polypeptide of claim 1.

27. (WITHDRAWN) The antibody of claim 26, wherein said monoclonal antibody is a monoclonal antibody.

28. (WITHDRAWN) The antibody of claim 26, wherein said antibody is a single chain antibody.

Appl. No. 09/743,684  
Amdt. Dated January 30, 2006  
Reply to Office Action of July 28, 2005

Attorney Docket No. 89188.0130  
Customer No.: 26021

29. (Previously Presented) A method of treating a mammal, wherein said mammal has a pathological condition associated with undesired angiogenesis, by administering an amount of the isolated polypeptide of claim 11 wherein said amount of polypeptide is effective to reduce angiogenesis.

30. (Previously Presented) The method of claim 29, wherein the mammal is human.

31. (Previously Presented) The method of claim 29, wherein said pathological condition is cancer.

32. (Previously Presented) The method of claim 31, wherein said cancer is Kaposi's Sarcoma.

33. (Previously Presented) The method of claim 29, wherein administration is selected from the group consisting of subcutaneous, intramuscular, intravenous, intra-arterial, intrabronchial, oral, transdermal, intraocular, rectal, vaginal, intranasal, sublingual and intralesional.

34. (Previously Presented) The method of claim 33, wherein the administration is selected from the group consisting of intralesional and transdermal.

35. (CANCELED)

36. (Previously Presented) The method of claim 29, wherein said therapeutic amount is from about 0.1 mg/kg to about 20 mg/kg.

37. (Previously Presented) A pharmaceutical composition in unit dosage form, comprising:

Appl. No. 09/743,684  
Amdt. Dated January 30, 2006  
Reply to Office Action of July 28, 2005

Attorney Docket No. 89188.0130  
Customer No.: 26021

- (a) one or more pharmaceutically acceptable excipients, and
- (b) an amount of the isolated polypeptide of claim 11, wherein the polypeptide is effective to treat or prevent undesired angiogenesis in an animal or patient to whom one or more unit doses of said composition are administered.

38. (Previously Presented) The pharmaceutical composition of claim 37, wherein said unit dosage form is an aseptic solution comprising said polypeptide.

39. (Previously Presented) The pharmaceutical composition of claim 37, wherein said unit dosage form is a topical ointment comprising said polypeptide.

40. (Currently Amended) An isolated fusion protein, said fusion protein comprising the isolated polypeptide of claim 11 and a cell targeting moiety, wherein said cell targeting moiety and said polypeptide have functional activity independent of each other.

41. (Previously Presented) The isolated fusion protein of claim 40, wherein said cell targeting moiety is a protein.

42. (Previously Presented) The isolated fusion protein of claim 41, wherein said protein is an antibody.

43. (Previously Presented) The isolated fusion protein of claim 42, wherein said antibody is a monoclonal antibody.

44. (Previously Presented) The isolated fusion protein of claim 43, wherein said antibody is a single chain Fv antibody.

45. (Currently Amended) An isolated fusion protein, said fusion protein comprising the isolated polypeptide of claim 11 and a cytotoxic moiety, wherein

Appl. No. 09/743,684  
Amdt. Dated January 30, 2006  
Reply to Office Action of July 28, 2005

Attorney Docket No. 89188.0130  
Customer No.: 26021

said cytotoxic moiety and said polypeptide have functional activity independent of each other.

46. (Previously Presented) The isolated fusion protein of claim 45, wherein said cytotoxic moiety is a protein.

47. (Previously Presented) The isolated fusion protein of claim 46, wherein said protein is a bacterial toxin.

48. (Previously Presented) The isolated fusion protein of claim 47, wherein said bacterial toxin is from Diphtheria toxin.

49. (Previously Presented) The isolated fusion protein of claim 48, wherein said Diphtheria toxin is the B chain of Diphtheria toxin.

50. (CANCELED)

51. (Previously Presented) The isolated fusion protein of claim 47, wherein said bacterial toxin is Pseudomonas exotoxin.

52. (Previously Presented) The isolated fusion protein of claim 51, wherein said Pseudomonas exotoxin is selected from the group consisting of PE38 and PE40.

53. (New) An isolated polypeptide comprising the sequence of SEQ ID NO:28, wherein the polypeptide is between 5 and 11 amino acids in length and has anti-angiogenic activity.

54. (New) An isolated polypeptide comprising the sequence R-XDVCQD-R' (SEQ ID NO:45), wherein the polypeptide is between 7-50 amino acids in length and has anti-angiogenic activity, and wherein:

Appl. No. 09/743,684  
Amdt. Dated January 30, 2006  
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Attorney Docket No. 89188.0130  
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R is selected from the group consisting of Aa<sub>1</sub>-Aa<sub>2</sub>-Aa<sub>3</sub>-Aa<sub>4</sub>-Aa<sub>5</sub>, Aa<sub>2</sub>-Aa<sub>3</sub>-Aa<sub>4</sub>-Aa<sub>5</sub>, Aa<sub>3</sub>-Aa<sub>4</sub>-Aa<sub>5</sub>, Aa<sub>4</sub>-Aa<sub>5</sub> and Aa<sub>5</sub>, or is absent, wherein:

Aa<sub>1</sub> is glutamine;

Aa<sub>2</sub> is proline;

Aa<sub>3</sub> is lysine;

Aa<sub>4</sub> is aspartic acid; or

Aa<sub>5</sub> is asparagine; and,

X is selected from the group consisting of glycine, alanine, serine and threonine; and,

R' is from 0 to about 59 contiguous amino acids.